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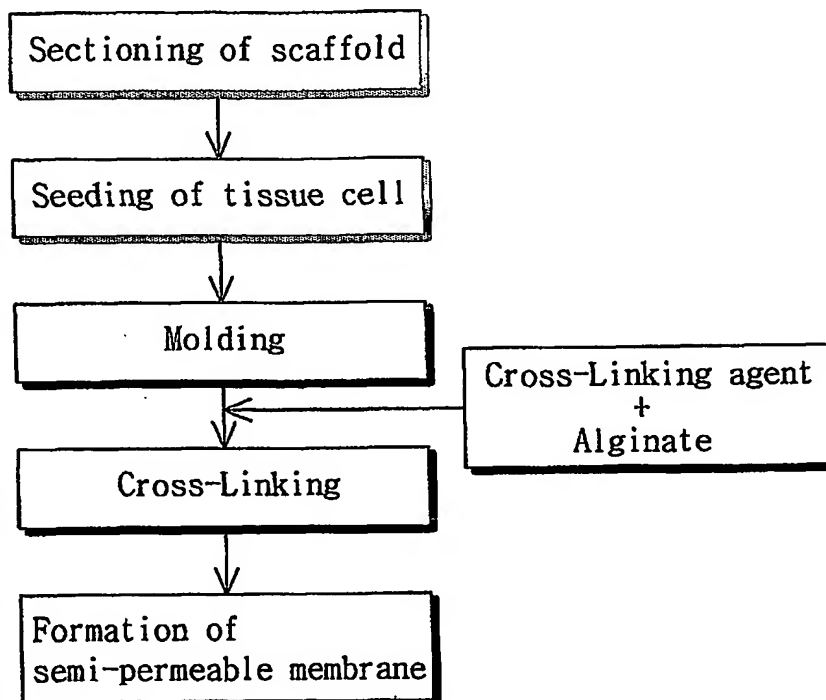
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(54) Title: BIODEGRADABLE DUAL POROUS SCAFFOLD WRAPPED WITH SEMI-PERMEABLE MEMBRANE AND TISSUE CELL CULTURE USING THEREOF



(57) Abstract: Disclosed is a scaffold including a semi-permeable membrane on an outer surface thereof. The present invention also discloses a method of preparing a scaffold covered with a semi-permeable membrane, including loading one or more scaffolds into a mold with a predetermined form and size; and adding a semi-permeable agent and a cross-linking agent to the mold and cross-linking the semi-permeable agent to form the semi-permeable membrane on the outer surface of each of the scaffolds. The scaffold covered with the semi-permeable membrane selectively introduces nutrients into the scaffold by allowing penetration of only external nutrients into the scaffold and excreting metabolic wastes generated by tissue cells to the outside of the scaffold. In addition, the scaffold has the morphology of a biological tissue of interest by cross-linking the small-sized scaffolds, thereby allowing uniform proliferation of tissue cells throughout the whole scaffold.



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